



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA-R05-OAR-2021-0054; EPA-R05-OAR-2022-0254; FRL-9686-01-R5]

**Air Plan Approval; Indiana; Redesignation of the Indiana portion
of the Louisville, Indiana-Kentucky Area to Attainment of the
2015 Ozone Standards**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to find that the Indiana portion of the Louisville, Indiana-Kentucky area (Area) is attaining the 2015 primary and secondary ozone National Ambient Air Quality Standards (NAAQS), and to act in accordance with a request from the Indiana Department of Environmental Management (IDEM) to redesignate the Indiana portion of the area to attainment for the 2015 ozone NAAQS because the request meets the statutory requirements for redesignation under the Clean Air Act (CAA). The Area includes Clark and Floyd Counties in Indiana and Bullitt, Jefferson, and Oldham Counties in Kentucky. IDEM submitted this request on February 21, 2022. EPA is proposing to approve, as a revision to the Indiana State Implementation Plan (SIP), the State's plan for maintaining the 2015 ozone NAAQS through 2035 in the Indiana portion of the Louisville area. EPA finds adequate and is proposing to approve Indiana's 2035 volatile organic compound (VOC) and oxides of nitrogen (NO_x) Motor Vehicle Emission Budgets

(budgets) for the Indiana portion of the Louisville area and is initiating the adequacy review process for these budgets.

Finally, EPA is also proposing to approve portions of a separate January 21, 2021 submittal from IDEM as meeting the applicable requirements for a base year emissions inventory and emissions statement program.

DATES: Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2020-0054, or EPA-R05-OAR-2022-0254 at

<https://www.regulations.gov>, or via email to *arra.sarah@epa.gov*.

For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For

the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Andrew Lee, Physical Scientist, Attainment Planning and Maintenance Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312)-353-7645, lee.andrew.c@epa.gov. The EPA Region 5 office is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays and facility closures due to COVID-19.

SUPPLEMENTARY INFORMATION: Throughout this document whenever "we," "us," or "our" is used, we mean EPA.

I. What is EPA proposing?

EPA is proposing to take several related actions. EPA is proposing to determine that the Indiana portion of the Louisville nonattainment area is attaining the 2015 ozone NAAQS, based on quality-assured and certified monitoring data for 2019-2021, and that the Indiana portion of the Louisville area has met the requirements for redesignation under section 107(d)(3)(E) of the CAA. EPA is thus proposing to change the designation of the Indiana portion of the Louisville area from nonattainment to attainment for the 2015 ozone NAAQS. EPA is also proposing to approve, as a revision to the Indiana SIP, the State's maintenance plan for the area. The maintenance plan is

designed to keep the Indiana portion of the Louisville area in attainment of the 2015 ozone NAAQS through 2035. EPA is proposing to approve the newly established 2035 budgets for the Indiana portion of the Louisville area and is initiating the adequacy process for these budgets. Finally, EPA is proposing to approve portions of Indiana's January 21, 2021, submittal because they satisfy the applicable CAA requirements for a base year emissions inventory and emissions statement program for the Indiana portion of the Louisville area.

II. What is the background for these actions?

EPA has determined that ground-level ozone is detrimental to human health. On October 1, 2015, EPA promulgated a revised 8-hour ozone NAAQS of 0.070 parts per million (ppm). See 80 FR 65292 (October 26, 2015). Under EPA's regulations at 40 CFR part 50, the 2015 ozone NAAQS is attained in an area when the 3-year average of the annual fourth highest daily maximum 8-hour average concentration is equal to or less than 0.070 ppm, when truncated after the thousandth decimal place, at all of the ozone monitoring sites in the area. See 40 CFR 50.19 and appendix U to 40 CFR part 50.

Upon promulgation of a new or revised NAAQS, section 107(d)(1)(B) of the CAA requires EPA to designate as nonattainment any areas that are violating the NAAQS, based on the most recent three years of quality assured ozone monitoring data. The Louisville area was designated as a Marginal nonattainment area for the 2015 ozone NAAQS on June 4, 2018 (83

FR 25776) (effective August 3, 2018).

III. What are the criteria for redesignation?

Section 107(d)(3)(E) of the CAA allows redesignation of an area to attainment of the NAAQS provided that: (1) the Administrator (EPA) determines that the area has attained the NAAQS; (2) the Administrator has fully approved the applicable implementation plan for the area under section 110(k) of the CAA; (3) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable SIP, applicable Federal air pollutant control regulations, and other permanent and enforceable emission reductions; (4) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A of the CAA; and (5) the state containing the area has met all requirements applicable to the area for the purposes of redesignation under section 110 and part D of the CAA.

On April 16, 1992, EPA provided guidance on redesignations in the General Preamble for the Implementation of Title I of the CAA Amendments of 1990 (57 FR 13498) and supplemented this guidance on April 28, 1992 (57 FR 18070). EPA has provided further guidance on processing redesignation requests in policy memoranda.

IV. What is EPA's analysis of Indiana's redesignation request?

A. *Has the Louisville area attained the 2015 ozone NAAQS?*

For redesignation of a nonattainment area to attainment,

the CAA requires EPA to determine that the area has attained the applicable NAAQS (CAA section 107(d)(3)(E)(i)). An area is attaining the 2015 ozone NAAQS if it meets the 2015 ozone NAAQS, as determined in accordance with 40 CFR 50.19 and appendix U of part 50, based on three complete, consecutive calendar years of quality-assured air quality data for all monitoring sites in the area. The 2015 ozone NAAQS is attained in an area when the 3-year average of the annual fourth highest daily maximum 8-hour average concentration is equal to or less than 0.070 ppm, when truncated after the thousandth decimal place, at all the ozone monitoring sites in the area. The air quality data must be collected and quality-assured in accordance with 40 CFR part 58 and recorded in EPA's Air Quality System (AQS). Ambient air quality monitoring data for the 3-year period must also meet data completeness requirements. An ozone design value is valid if daily maximum 8-hour average concentrations are available for at least 90% of the days within the ozone monitoring seasons¹, on average, for the 3-year period, with a minimum data completeness of 75% during the ozone monitoring season of any year during the 3-year period. See section 4 of appendix U to 40 CFR part 50.

EPA has reviewed the available ozone monitoring data from monitoring sites in the Louisville area for the 2019-2021 period. These data have been quality assured, are recorded in the AQS, and were certified in advance of EPA's publication of this proposal. These data demonstrate that the Louisville area

is attaining the 2015 ozone NAAQS. The annual fourth-highest 8-hour ozone concentrations and the 3-year average of these concentrations (monitoring site ozone design values) for each monitoring site are summarized in Table 1.

Table 1. Annual fourth-highest daily maximum 8-hour ozone concentrations and 3-year average of the fourth-highest daily maximum 8-hour ozone concentrations for the Louisville area.

County	Monitor	2019 4 th high (ppm)	2020 4 th high (ppm)	2021 4 th high (ppm)	2019-2021 average (ppm)
Clark, IN	18-019-0008	0.064	0.062	0.063	0.063
Floyd, IN	18-043-1004	0.063	0.066	0.064	0.064
Bullitt, KY	21-029-0006	0.063	0.065	0.065	0.064
Jefferson, KY	21-111-0051	0.065	0.063	0.067	0.065
	21-111-0067	0.068	0.071	0.069	0.069
	21-111-0080	0.064	0.068	0.073	0.068
Oldham	26-163-0001	0.065	0.061	0.065	0.063

The Louisville area's 3-year ozone design value for 2019-2021 is 0.069 ppm,² which meets the 2015 ozone NAAQS. Therefore, in this action, EPA proposes to determine that the Louisville area is attaining the 2015 ozone NAAQS.

EPA will not take final action to determine that the Louisville area is attaining the NAAQS or to approve the redesignation of this area if the design value of a monitoring site in the area violates the NAAQS after proposal but prior to final approval of the redesignation. As discussed in section IV.D.3. below, IDEM has committed to continue monitoring ozone

² The monitor ozone design value for the monitor with the highest 3-year averaged concentration.

in this area to verify maintenance of the 2015 ozone NAAQS.

B. Has Indiana met all applicable requirements of section 110 and part D of the CAA for the Indiana portion of the Louisville area, and does the Indiana portion of the Louisville have a fully approved SIP for the area under section 110(k) of the CAA?

For redesignation of an area from nonattainment to attainment of a NAAQS, the CAA requires EPA to determine that the state has met all applicable requirements under section 110 and part D of title I of the CAA (see section 107(d)(3)(E)(v) of the CAA) and that the state has a fully approved SIP under section 110(k) of the CAA (see section 107(d)(3)(E)(ii) of the CAA). EPA proposes to find that Indiana has met all applicable SIP requirements for purposes of redesignation under section 119 and part D of title I of the CAA (requirements specific to nonattainment areas for the 2015 ozone NAAQS). Additionally, with the exception of the base year emissions inventory requirement of section 182(a)(1) of the CAA and the emissions statement requirement of section 182(a)(3)(B) of the CAA, EPA proposes to find that Indiana has a fully approved SIP under section 110(k) of the CAA. As discussed in sections VI. and VII. below, EPA is proposing to approve Indiana's base year emissions inventory and emissions statement program as meeting the requirements of sections 182(a)(1) and 182(a)(3), respectively, for the 2015 ozone NAAQS. Upon final approval of these SIP elements, all applicable requirements of the Indiana SIP for the area will have been fully approved under section

110(k) of the CAA. In making these proposed determinations, EPA ascertained which requirements are applicable for purposes of redesignation, and whether the required Indiana SIP elements are fully approved under section 110(k) and part D of the CAA. As discussed more fully below, SIPs must be fully approved only with respect to these applicable requirements of the CAA.

The September 4, 1992, memorandum from John Calcagni, Director, Air Quality Management Division, entitled "Procedures for Processing Requests to Redesignate Areas to Attainment," describes EPA's interpretation of which requirements are "applicable" for purposes of redesignation under section 107(d)(3)(E) of the CAA. Under this interpretation, a requirement is not "applicable" unless it was due prior to the state's submittal of a complete redesignation request for the area. See also the September 17, 1993, memorandum from Michael H. Shapiro, entitled "State Implementation Plan (SIP) Requirements for Areas Submitting Requests for Redesignation to Attainment of the Ozone and Carbon Monoxide (CO) National Ambient Air Quality Standards (NAAQS) On or After November 15, 1992," and 60 FR 12459, 12465-66 (March 7, 1995) (redesignation of Detroit-Ann Arbor, Michigan to attainment of the 1hour ozone NAAQS). Applicable requirements of the CAA that come due subsequent to the state's submittal of a complete request remain applicable until a redesignation to attainment is approved but

are not required as a prerequisite to redesignation.³ See section 175A(c) of the CAA. *Sierra Club v. EPA*, 375 F.3d 537 (7th Cir. 2004). See also 68 FR 25424, 25427 (May 12, 2003) (redesignation of the St. Louis/East St. Louis area to attainment of the 1hour ozone NAAQS).

1. Indiana has met all applicable requirements of section 110 and part D of the CAA applicable to the Indiana portion of the Louisville area for purposes of redesignation.

a. Section 110 General Requirements for Implementation Plans.

Section 110(a)(2) of the CAA delineates the general requirements for a SIP. Section 110(a)(2) provides that the SIP must have been adopted by the state after reasonable public notice and hearing, and that, among other things, it must: (1) include enforceable emission limitations and other control measures, means or techniques necessary to meet the requirements of the CAA; (2) provide for establishment and operation of appropriate devices, methods, systems and procedures necessary to monitor ambient air quality; (3) provide for implementation of a source permit program to regulate the modification and

³ EPA is, in a separate action, proposing to find that the Louisville area failed to attain the 2015 ozone NAAQS by its attainment date. If that determination were to be finalized, the area would be reclassified to Moderate by operation of law. However, because of EPA's interpretation and the date by which Indiana submitted its request, those Moderate area requirements are not considered applicable requirements for purposes of redesignating the Louisville area. Specifically, at the time Indiana submitted its request, EPA had not yet determined that the area failed to attain and had not yet reclassified the area. Per CAA section 182(i) and consistent with CAA section 179(d), EPA typically adjusts the deadlines for SIP submissions that are required for newly reclassified areas. Therefore, even if EPA were to finalize today the determination that the area failed to attain and reclassify the area, the deadline for the requirements associated with the reclassification would be set at some point in the future. Indiana submitted its request to redesignate well in advance of any hypothetical due date associated with Moderate area requirements.

construction of stationary sources within the areas covered by the plan; (4) include provisions for the implementation of part C prevention of significant deterioration (PSD) and part D new source review (NSR) permit programs; (5) include provisions for stationary source emission control measures, monitoring, and reporting; (6) include provisions for air quality modeling; and, (7) provide for public and local agency participation in planning and emission control rule development.

Section 110(a)(2)(D) of the CAA requires SIPs to contain measures to prevent sources in a state from significantly contributing to air quality problems in another state. To implement this provision, EPA has required certain states to establish programs to address transport of certain air pollutants, e.g., NO_x SIP call, the Clean Air Interstate Rule (CAIR), and the Cross State Air Pollution Rule (CSAPR). However, like many of the 110(a)(2) requirements, the section 110(a)(2)(D) SIP requirements are not linked with a particular area's ozone designation and classification. EPA concludes that the SIP requirements linked with the area's ozone designation and classification are the relevant measures to evaluate when reviewing a redesignation request for the area. The section 110(a)(2)(D) requirements, where applicable, continue to apply to a state regardless of the designation of any one particular area within the state. Thus, we believe these requirements are not applicable requirements for purposes of redesignation. See 65 FR 37890 (June 15, 2000), 66 FR 50399 (October 19, 2001), 68

FR 25418, 25426-27 (May 13, 2003).

In addition, EPA believes that other section 110 elements that are neither connected with nonattainment plan submissions nor linked with an area's ozone attainment status are not applicable requirements for purposes of redesignation. The area will still be subject to these requirements after the area is redesignated to attainment of the 2015 ozone NAAQS. The section 110 and part D requirements which are linked with a particular area's designation and classification are the relevant measures to evaluate in reviewing a redesignation request. This approach is consistent with EPA's existing policy on applicability (i.e., for redesignations) of conformity requirements, as well as with section 184 ozone transport requirements. See Reading, Pennsylvania proposed and final rulemakings, 61 FR 53174-53176 (October 10, 1996) and 62 FR 24826 (May 7, 1997); Cleveland-Akron-Loraine, Ohio final rulemaking, 61 FR 20458 (May 7, 1996); and Tampa, Florida final rulemaking, 60 FR 62748 (December 7, 1995). See also the discussion of this issue in the Cincinnati, Ohio ozone redesignation (65 FR 37890, June 19, 2000), and the Pittsburgh, Pennsylvania ozone redesignation (66 FR 50399, October 19, 2001).

We have reviewed Indiana's SIP and propose to find that it meets the general SIP requirements under section 110 of the CAA, to the extent those requirements are applicable for purposes of redesignation. The requirements of section 110(a)(2), however, are statewide requirements that are not linked to the 2015 ozone

NAAQS nonattainment status of the Louisville area. Therefore, EPA concludes that these infrastructure requirements are not applicable requirements for purposes of review of the state's ozone redesignation request.

b. Part D Requirements.

Section 172(c) of the CAA sets forth the basic requirements of air quality plans for states with nonattainment areas that are required to submit them pursuant to section 172(b). Subpart 2 of part D, which includes section 182 of the CAA, establishes specific requirements for ozone nonattainment areas depending on the areas' nonattainment classifications.

The Louisville area was classified as Marginal under subpart 2 for the 2015 ozone NAAQS. As such, the area is subject to the subpart 1 requirements contained in section 172(c) and section 176. Similarly, the area is subject to the subpart 2 requirements contained in section 182(a) (Marginal nonattainment area requirements). A thorough discussion of the requirements contained in section 172(c) and 182 can be found in the General Preamble for Implementation of Title I (57 FR 13498).

i. Subpart 1 Section 172 Requirements.

As provided in subpart 2, for Marginal ozone nonattainment areas such as the Louisville area, the specific requirements of section 182(a) apply in lieu of the attainment planning requirements that would otherwise apply under section 172(c), including the attainment demonstration and reasonably available

control measures (RACM) under section 172(c)(1), reasonable further progress (RFP) under section 172(c)(2), and contingency measures under section 172(c)(9). 42 U.S.C. 7511a(a).

Section 172(c)(3) requires submission and approval of a comprehensive, accurate and current inventory of actual emissions. This requirement is superseded by the inventory requirement in section 182(a)(1) discussed below.

Section 172(c)(4) requires the identification and quantification of allowable emissions for major new and modified stationary sources in an area, and section 172(c)(5) requires source permits for the construction and operation of new and modified major stationary sources anywhere in the nonattainment area. EPA approved Indiana's NSR program into the SIP on October 7, 1994 (59 FR 51108), with revisions subsequently approved into the SIP on July 8, 2011 (76 FR 40242).

Nonetheless, EPA has determined that, since PSD requirements will apply after redesignation, areas being redesignated need not comply with the requirement that a NSR program be approved prior to redesignation, provided that the area demonstrates maintenance of the NAAQS without part D NSR. A more detailed rationale for this view is described in a memorandum from Mary Nichols, Assistant Administrator for Air and Radiation, dated October 14, 1994, entitled, "Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment." See rulemakings for Detroit, Michigan (60 FR 12467-12468, March 7, 1995); Cleveland-Akron-Lorain, Ohio (61 FR 20458,

20469-20470, May 7, 1996); Louisville, Kentucky (66 FR 53665, October 23, 2001); and Grand Rapids, Michigan (61 FR 31834-31837, June 21, 1996). Indiana's PSD program will become effective in the Indiana portion of the Louisville area upon redesignation to attainment. EPA approved Indiana's PSD program on May 20, 2004 (69 FR 29071).

Section 172(c)(6) requires the SIP to contain control measures necessary to provide for attainment of the NAAQS. Because attainment has been reached, no additional measures are needed to provide for attainment.

Section 172(c)(7) requires the SIP to meet the applicable provisions of section 110(a)(2). As noted above, we believe the Indiana SIP meets the requirements of section 110(a)(2) for purposes of redesignation.

ii. Section 176 Conformity Requirements.

Section 176(c) of the CAA requires that federally supported or funded projects conform to the applicable SIP. The requirement to determine conformity applies to transportation plans, programs and projects that are developed, funded or approved under title 23 of the United States Code (U.S.C.) and the Federal Transit Act (transportation conformity) as well as to all other federally supported or funded projects (general conformity). State transportation conformity SIP revisions must be consistent with Federal conformity regulations relating to consultation, enforcement and enforceability that EPA promulgated pursuant to its authority under the CAA.

EPA interprets the conformity SIP requirements⁴ as not applying for purposes of evaluating a redesignation request under section 107(d) because state conformity rules are still required after redesignation and Federal conformity rules apply where state conformity rules have not been approved. See *Wall v. EPA*, 265 F.3d 426 (6th Cir. 2001) (upholding this interpretation); see also 60 FR 62748 (December 7, 1995) (redesignation of Tampa, Florida). Nonetheless, Indiana's general conformity rules were approved into Section 176(c) of the CAA on January 14, 1998 (63 FR 2146).

iii. Section 182(a) Requirements.

Section 182(a)(1) requires states to submit a comprehensive, accurate, and current inventory of actual emissions from sources of NO_x and VOC emitted within the boundaries of the ozone nonattainment area within two years of designation. On January 21, 2021, Indiana submitted emissions inventories for the Indiana portion of the Louisville area for the 2017 base year. As described in section VI. below, EPA is proposing to approve Indiana's base year emissions inventory as meeting the requirements of section 182(a)(1) for the 2015 ozone NAAQS.

Under section 182(a)(2)(A), states with ozone nonattainment areas that were designated prior to the enactment of the 1990 CAA amendments were required to submit, within six months of

⁴ CAA section 176(c)(4)(E) requires states to submit revisions to their SIPs to reflect certain Federal criteria and procedures for determining transportation conformity. Transportation conformity SIPs are different from SIPs requiring the development of motor vehicle emission budgets, such as control strategy SIPs and maintenance plans.

classification, all rules and corrections to existing VOC reasonably available control technology (RACT) rules that were required under section 172(b)(3) prior to the 1990 CAA amendments. The Indiana portion of the Louisville area is not subject to the section 182(a)(2) RACT "fix up" requirement for the 2015 ozone NAAQS because it was designated as nonattainment for this standard after the enactment of the 1990 CAA amendments and, in any case, Indiana complied with this requirement for the Indiana portion of the Louisville area under the prior 1-hour ozone NAAQS. See 57 FR 8082 (March 6, 1992).

Section 182(a)(2)(B) requires each state with a Marginal ozone nonattainment area that implemented or was required to implement a vehicle inspection and maintenance (I/M) program prior to the 1990 CAA amendments to submit a SIP revision for an I/M program no less stringent than that required prior to the 1990 CAA amendments or already in the SIP at the time of the CAA amendments, whichever is more stringent. For the purposes of the 2015 ozone NAAQS and the consideration of Indiana's redesignation request for this standard, the Louisville area is not subject to the section 182(a)(2)(B) requirement because the Louisville area was designated as nonattainment for the 2015 ozone NAAQS after the enactment of the 1990 CAA amendments and because Indiana complied with this requirement for the Louisville area under the prior 1-hour ozone NAAQS.

Regarding the source permitting and offset requirements of section 182(a)(2)(C) and section 182(a)(4), Indiana currently

has a fully-approved part D NSR program in place. EPA approved Indiana's NSR program into the SIP on October 7, 1994 (59 FR 51108), with revisions subsequently approved into the SIP on July 8, 2011 (76 FR 40242). EPA approved Indiana's PSD program on May 20, 2004 (69 FR 29071). The state's PSD program will become effective in the Indiana portion of the Louisville area upon redesignation of the area to attainment.

Section 182(a)(3)(A) requires states to submit periodic emission inventories and section 182(a)(3)(B) requires states to submit a revision to the SIP to require the owners or operators of stationary sources to annually submit emissions statements documenting actual NO_x and VOC emissions. As discussed below in section IV.D.4. of this proposed rule, Indiana will continue to update its emissions inventory at least once every three years. With regard to stationary source emissions statements, EPA approved Indiana's emissions statement program on June 10, 1994 (59 FR 29953). On January 21, 2021, Indiana submitted a separate request to strengthen its SIP-approved emissions statement program by adding, removing, and updating certain statutes and reporting forms. As described in section VII. below, EPA is proposing to approve portions of Indiana's emissions statement submittal as meeting the requirements of section 182(a)(3)(B) for the 2015 ozone NAAQS.

Upon approval of Indiana's emissions inventory and emissions statements rules, the Indiana portion of the Louisville area will have satisfied all applicable requirements

for purposes of redesignation under section 110 and part D of title I of the CAA.

2. The Indiana portion of the Louisville area has a fully approved SIP for purposes of redesignation under section 110(k) of the CAA.

At various times, Indiana has adopted and submitted, and EPA has approved, provisions addressing the various SIP elements applicable for the ozone NAAQS. As discussed above, if EPA finalizes approval of Indiana's section 182(a)(1) base year inventory requirements and section 182(a)(3)(B) emission statement requirements, EPA will have fully approved the Indiana SIP for the Indiana portion of the Louisville area under section 110(k) for all requirements applicable for purposes of redesignation under the 2015 ozone NAAQS. EPA may rely on prior SIP approvals in approving a redesignation request (see the Calcagni memorandum at page 3; *Southwestern Pennsylvania Growth Alliance v. Browner*, 144 F.3d 984, 989-990 (6th Cir. 1998); *Wall v. EPA*, 265 F.3d 426). Additional measures may also be approved in conjunction with a redesignation action (see 68 FR 25426 (May 12, 2003) and citations therein).

C. Are the air quality improvements in the Louisville area due to permanent and enforceable emission reductions?

To redesignate an area from nonattainment to attainment, section 107(d)(3)(E)(iii) of the CAA requires EPA to determine that the air quality improvement in the area is due to permanent and enforceable reductions in emissions resulting from the

implementation of the SIP and applicable Federal air pollution control regulations and other permanent and enforceable emission reductions. EPA proposes to determine that Indiana has demonstrated that the observed ozone air quality improvement in the Louisville area is due to permanent and enforceable reductions in VOC and NO_x emissions resulting from state measures adopted into the SIP and Federal measures.

In making this demonstration, the State has calculated the change in emissions between 2017 and 2019. The reduction in emissions and the corresponding improvement in air quality over this time period can be attributed to several regulatory control measures that the Louisville area and upwind areas have implemented in recent years. In addition, Indiana provided an analysis to demonstrate the improvement in air quality was not due to unusually favorable meteorology. Based on the information summarized below, EPA proposes to find that Indiana has adequately demonstrated that the improvement in air quality is due to permanent and enforceable emissions reductions.

1. Permanent and enforceable emission controls implemented.

- a. Regional NO_x Controls.

CAIR / CSAPR. Under the "good neighbor provision" of CAA section 110(a)(2)(D)(i)(I), states are required to address interstate transport of air pollution. Specifically, the good neighbor provision provides that each state's SIP must contain provisions prohibiting emissions from within that state which will contribute significantly to nonattainment of the NAAQS, or

interfere with maintenance of the NAAQS, in any other state.

On May 12, 2005, EPA published CAIR, which required eastern states, including Indiana, to prohibit emissions consistent with annual and ozone season NO_x budgets and annual sulfur dioxide (SO₂) budgets (70 FR 25152). CAIR addressed the good neighbor provision for the 1997 ozone NAAQS and 1997 fine particulate matter (PM_{2.5}) NAAQS and was designed to mitigate the impact of transported NO_x emissions, a precursor of both ozone and PM_{2.5}, as well as transported SO₂ emissions, another precursor of PM_{2.5}. The United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) remanded CAIR to EPA for replacement in 2008. *North Carolina v. EPA*, 531 F.3d 896, modified, 550 F.3d 1176 (2008). While EPA worked on developing a replacement rule, implementation of the CAIR program continued as planned with the NO_x annual and ozone season programs beginning in 2009 and the SO₂ annual program beginning in 2010.

On August 8, 2011 (76 FR 48208), acting on the D.C. Circuit's remand, EPA published CSAPR to replace CAIR and to address the good neighbor provision for the 1997 ozone NAAQS, the 1997 PM_{2.5} NAAQS, and the 2006 PM_{2.5} NAAQS.⁵ Through Federal Implementation Plans, CSAPR required electric generating units (EGUs) in eastern states, including Indiana, to meet annual and ozone season NO_x budgets and annual SO₂ budgets implemented through new trading programs. After delays caused by litigation, EPA started implementing the CSAPR trading programs

⁵ In a December 27, 2011 rulemaking, EPA included Indiana in the ozone season NO_x program, addressing the 1997 ozone NAAQS (76 FR 80760).

in 2015, simultaneously discontinuing administration of the CAIR trading programs. On October 26, 2016, EPA published the CSAPR Update, which established, starting in 2017, a new ozone season NO_x trading program for EGUs in eastern states, including Indiana, to address the good neighbor provision for the 2008 ozone NAAQS (81 FR 74504). The CSAPR Update was estimated to result in a 20% reduction in ozone season NO_x emissions from EGUs in the eastern United States, a reduction of 80,000 tons in 2017 compared to 2015 levels. On April 30, 2021, EPA published the Revised CSAPR Update, which fully resolved the obligations of eastern states, including Indiana, under the good neighbor provision for the 2008 ozone NAAQS (82 FR 23054). The Revised CSAPR Update was estimated to reduce ozone season NO_x emissions from EGUs by 17,000 tons beginning in 2021, compared to emissions without the rule. The reduction in NO_x emissions from the implementation of CAIR and then CSAPR occurred by the attainment years and additional emission reductions will occur throughout the maintenance period.

b. Federal Emission Control Measures.

Reductions in VOC and NO_x emissions have occurred statewide and in upwind areas as a result of Federal emission control measures, with additional emission reductions expected to occur in the future. Federal emission control measures include the following:

Tier 3 Emission Standards for Vehicles and Gasoline Sulfur Standards. On April 28, 2014 (79 FR 23414), EPA promulgated

Tier 3 motor vehicle emission and fuel standards to reduce both tailpipe and evaporative emissions and to further reduce the sulfur content in fuels. The rule is being phased in between 2017 and 2025. Tier 3 sets new tailpipe standards for non-methane organic gases (NMOG) and NO_x, presented as NMOG+NO_x, and for particulate matter. The VOC and NO_x tailpipe standards for light-duty vehicles represent approximately an 80% reduction in fleet average NMOG+NO_x and a 70% reduction in per-vehicle particulate matter (PM) standards, relative to the fleet average at the time of phase-in. Heavy-duty tailpipe standards represent about a 60% reduction in both fleet average NMOG+NO_x and per-vehicle PM standards. The evaporative emissions requirements in the rule will result in approximately a 50% reduction from previous standards and apply to all light-duty and on-road gasoline-powered heavy-duty vehicles. Finally, the rule lowered the sulfur content of gasoline to an annual average of 10 ppm starting in January 2017. As projected by these estimates and demonstrated in the on-road emission modeling for the Indiana portion of the Louisville area, some of these emission reductions occurred by the attainment years and additional emission reductions will occur throughout the maintenance period, as older vehicles are replaced with newer, compliant model years.

Heavy-Duty Diesel Engine Rules. In July 2000, EPA issued a rule for on-road heavy-duty diesel engines that includes standards limiting the sulfur content of diesel fuel. Emissions

standards for NO_x, VOC and PM were phased in between model years 2007 and 2010. In addition, the rule reduced the highway diesel fuel sulfur content to 15 parts per million by 2007, leading to additional reductions in combustion NO_x and VOC emissions. EPA has estimated future year emission reductions due to implementation of this rule. EPA estimated that by 2015 NO_x and VOC emissions would decrease nationally by 1,260,000 tons and 54,000 tons, respectively, and that by 2030 NO_x and VOC emissions will decrease nationally by 2,570,000 tons and 115,000 tons, respectively. As projected by these estimates and demonstrated in the on-road emission modeling for the Indiana portion of the Louisville area, some of these emission reductions occurred by the attainment years and additional emission reductions will occur throughout the maintenance period, as older vehicles are replaced with newer, compliant model years.

Non-road Diesel Rule. On June 29, 2004 (69 FR 38958), EPA issued a rule adopting emissions standards for non-road diesel engines and sulfur reductions in non-road diesel fuel. This rule applies to diesel engines used primarily in construction, agricultural, and industrial applications. Emission standards were phased in for the 2008 through 2015 model years based on engine size. The sulfur limits for non-road diesel fuels were phased in from 2007 through 2012. EPA estimates that now fully implemented, compliance with this rule will cut NO_x emissions from these non-road diesel engines by approximately 90%. As projected by these estimates and demonstrated in the non-road

emission modeling for the Indiana portion of the Louisville area, some of these emission reductions occurred by the attainment years and additional emission reductions will occur throughout the maintenance period.

Non-road Spark-Ignition Engines and Recreational Engine Standards. On November 8, 2002 (67 FR 68242), EPA adopted emission standards for large spark-ignition engines such as those used in forklifts and airport ground-service equipment; recreational vehicles such as off-highway motorcycles, all-terrain vehicles, and snowmobiles; and recreational marine diesel engines. These emission standards were phased in from model years 2004 through 2012. Now fully implemented, EPA estimates an overall 72% reduction in national VOC emissions from these engines and an 80% reduction in national NO_x emissions. As projected by these estimates and demonstrated in the non-road emission modeling for the Indiana portion of the Louisville area, some of these emission reductions occurred by the attainment years and additional emission reductions will occur throughout the maintenance period.

Category 3 Marine Diesel Engine Standards. On April 30, 2010 (75 FR 22896), EPA issued emission standards for marine compression-ignition engines at or above 30 liters per cylinder. Tier 2 emission standards applied beginning in 2011 and are expected to result in a 15 to 25% reduction in NO_x emissions from these engines. Final Tier 3 emission standards applied beginning in 2016 and are expected to result in approximately an

80% reduction in NO_x from these engines. As projected by these estimates and demonstrated in the non-road emission modeling for the Indiana portion of the Louisville area, some of these emission reductions occurred by the attainment years and additional emission reductions will occur throughout the maintenance period.

2. Emission reductions.

Indiana is using a 2017 emissions inventory as the base year because EPA's 2017 National Emissions Inventory (NEI) is the most recently available triennial emissions inventory preceding the nonattainment designations in April 2018. Indiana is using 2019 as the attainment year, which is appropriate because it is one of the years in the 2019-2021 period used to demonstrate attainment.

Indiana has provided inventories for point, nonpoint, on-road, and nonroad sources. The inventory for point sources includes facilities that report their emissions directly to IDEM, as well as sources such as airports and rail yards. Nonpoint sources, sometimes called area sources, include emissions from sources that are more ubiquitous, such as consumer products or architectural coatings. On-road sources are vehicles that are primarily used on public roadways, such as cars, trucks, and motorcycles. Nonroad sources include engine-based emissions that do not occur on roads, such as trains or boats.

For its point, nonpoint, and nonroad emissions inventories,

Indiana used EPA's 2017 NEI and EPA's 2017 Emissions Modeling platform as its primary sources. To derive inventories for 2019, IDEM interpolated between 2016 and 2023, 2026, and 2032 data from EPA's 2016v2 modeling platform. The 2016v2 modeling platform and 2017 NEI have been quality-assured, and documentation regarding these datasets and their methods are available on EPA's website.⁶ Point source, area source, and non-road emissions were compiled using data from EPA's Emissions Modeling Clearinghouse website for the entire Louisville nonattainment area.

For its on-road emissions inventory, Indiana submitted an analysis by Kentuckiana Regional Planning Commission and Development Agency (KIPDA) in conjunction with the Louisville Air Pollution Control District (APCD). This analysis used EPA's MOVES3.0.2 model to generate summer day on-road emissions for 2015 and 2020 which was interpolated to arrive at 2017 NO_x and VOC tons per summer day. KIPDA's and APCD's analysis relied on local travel inputs including demographic data, travel demand forecasting, road types, Vehicle Miles of Travel (VMT), Vehicle Hours of Travel, vehicle population, and vehicle age, as well as meteorological data. In Appendix C of its submittal, Indiana has included a detailed narrative of KIPDA's methods.

To obtain the inventories, IDEM summed the annual totals of NO_x and VOC emissions from each emission category. Then, IDEM

⁶ <https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-technicalsupport-document-tsd> and <https://www.epa.gov/air-emissions-modeling/2016-version-2-technical-support-document>.

calculated a conversion factor to convert the annual totals to a value of tons per ozone season day. This conversion factor was generated by taking the June-August category emissions and dividing them by the annual category emissions. IDEM selected June-August as the standard ozone season months, due to an analysis showing that those months had the most days with high ozone values in recent years.

Using the inventories described above, Indiana's submittal documents changes in NO_x and VOC emissions from 2017 to 2019 for the Indiana portion of the Louisville area. Emissions data are shown in Table 2. Data are expressed in terms of tons per ozone season day.

Table 2. NO_x and VOC emissions in the Indiana and Kentucky portions of the Louisville area for the 2017 nonattainment year and 2019 attainment year (tons per summer day).

	NO _x			VOC		
	2017	2019	Net Change (2017-2019)	2017	2019	Net Change (2017-2019)
Indiana						
Point	2.70	4.18	1.48	2.15	0.20	-1.95
Nonpoint	2.05	0.42	-1.63	11.21	8.33	-2.88
On-road	11.03	7.73	-3.30	4.41	3.37	-1.04
Nonroad	1.92	2.76	0.84	1.14	1.43	-0.29
Total	17.70	15.09	-2.61	18.91	13.33	-5.58
Kentucky						
Point	35.78	34.04	-1.74	30.92	33.45	2.53
Nonpoint	7.21	6.77	-0.44	40.14	36.76	-3.38
On-road	25.60	25.31	-0.29	9.29	10.28	0.99
Nonroad	3.46	3.38	-0.08	4.37	4.36	-0.01
Total	72.05	69.50	-2.55	84.72	84.85	0.13
Louisville, IN-KY 2015 Ozone Area						
Point	38.48	38.22	-0.26	33.07	33.65	0.58
Nonpoint	9.26	7.19	-2.07	51.35	45.09	-6.26
On-road	36.63	33.04	-3.59	13.70	13.65	-0.05
Nonroad	5.38	6.14	0.76	5.51	5.79	0.28
Total	89.75	84.59	-5.16	103.63	98.18	-5.45

As shown in Table 2, NO_x and VOC emissions in the Indiana portion of the Louisville area declined by 2.61 tons per ozone season day and 5.58 tons per ozone season day, respectively, between 2017 and 2019. NO_x and VOC emissions in the entire Louisville area declined by 5.16 and 5.45 tons per ozone season day, respectively, between 2017 and 2019.

3. Meteorology.

To further support IDEM's demonstration that the improvement in air quality between the year violations occurred and the year attainment was achieved is due to permanent and enforceable emission reductions and not unusually favorable meteorology, an analysis was performed by the Lake Michigan Air Directors Consortium (LADCO). A classification and regression tree (CART) analysis was conducted with 2005 through 2020 data from Louisville-area ozone monitors. The goal of the analysis was to determine the meteorological and air quality conditions associated with ozone episodes, and construct trends for the days identified as sharing similar meteorological conditions.

Regression trees were developed for the monitors to classify each summer day by its ozone concentration and associated meteorological conditions. By grouping days with similar meteorology, the influence of meteorological variability on the underlying trend in ozone concentrations is partially removed and the remaining trend is presumed to be due to trends in precursor emissions or other non-meteorological influences. The CART analysis showed that, removing the impact of

meteorology, the resulting trends in ozone concentrations declined over the period examined, and supported the conclusion that the improvement in air quality was not due to unusually favorable meteorology.

D. Does Indiana have a fully approvable ozone maintenance plan for the Indiana portion of the Louisville area?

To redesignate an area from nonattainment to attainment, section 107(d)(3)(E)(iv) of the CAA requires EPA to determine that the area has a fully approved maintenance plan pursuant to section 175A of the CAA. Section 175A of the CAA sets forth the elements of a maintenance plan for areas seeking redesignation from nonattainment to attainment. Under section 175A, the maintenance plan must demonstrate continued attainment of the NAAQS for at least 10 years after the Administrator approves a redesignation to attainment. Eight years after the redesignation, the state must submit a revised maintenance plan which demonstrates that attainment of the NAAQS will continue for an additional 10 years beyond the initial 10-year maintenance period. To address the possibility of future NAAQS violations, the maintenance plan must contain contingency measures, as EPA deems necessary, to assure prompt correction of the future NAAQS violation.

The Calcagni Memorandum provides further guidance on the content of a maintenance plan, explaining that a maintenance plan should address five elements: (1) an attainment emission inventory; (2) a maintenance demonstration; (3) a commitment for

continued air quality monitoring; (4) a process for verification of continued attainment; and (5) a contingency plan. In conjunction with its request to redesignate the Indiana portion of the Louisville area to attainment for the 2015 ozone NAAQS, Indiana submitted a SIP revision to provide for maintenance of the 2015 ozone NAAQS through 2035, more than 10 years after the expected effective date of the redesignation to attainment. As discussed below, EPA proposes to find that Indiana's ozone maintenance plan includes the necessary components and to approve the maintenance plan as a revision of the Indiana SIP.

1. Attainment inventory.

EPA is proposing to determine that the Indiana portion of the Louisville area has attained the 2015 ozone NAAQS based on monitoring data for the period of 2019-2021. Indiana selected 2019 as the attainment emissions inventory year to establish attainment emission levels for VOC and NO_x. The attainment emissions inventory identifies the levels of emissions in the Indiana portion of the Louisville area that are sufficient to attain the 2015 ozone NAAQS. The derivation of the attainment year emissions is discussed above in section IV.C.2. of this proposed rule. The emissions for the 2019 attainment year, by source category, are summarized in Table 2 above.

2. Has the state demonstrated maintenance of the ozone standard in the Indiana portion of the Louisville area?

Indiana has demonstrated maintenance of the 2015 ozone NAAQS through 2035 by projecting that current and future

emissions of VOC and NO_x for the Indiana portion of the Louisville area remain at or below attainment year emission levels. A maintenance demonstration need not be based on modeling. See *Wall v. EPA*, 265 F.3d 426 (6th Cir. 2001), *Sierra Club v. EPA*, 375 F. 3d 537 (7th Cir. 2004). See also 66 FR 53094, 53099-53100 (October 19, 2001), 68 FR 25413, 25430-25432 (May 12, 2003).

Indiana is using emissions inventories for the years 2030 and 2035 to demonstrate maintenance. 2035 was selected because it is more than 10 years after the expected effective date of the redesignation to attainment, and 2030 was selected to demonstrate that emissions are not expected to spike in the interim between the 2019 attainment year and the 2035 final maintenance year.

To develop emissions inventories for the years 2030 and 2035, Indiana used a methodology consistent with the methods used to develop its inventories for the years 2017 and 2019. This methodology is discussed above in section IV.C.2. of this proposed rule.

For its point, nonpoint, and nonroad emissions inventories, Indiana again used EPA's 2016v2 modeling platform. To derive inventories for 2030, IDEM interpolated between 2023 and 2026 and 2032 data from the 2016v2 modeling platform. To derive inventories for 2035, IDEM extrapolated forward from the 2016v2 modeling platform data using data points from 2016, 2023, 2026, and 2032 years.

For its on-road emissions inventory, Indiana again relied upon the KIPDA analysis, which used EPA's MOVES3.0.2 model to generate summer day on-road emissions for all years. KIPDA adjusted its analysis to use inputs and assumptions appropriate for the future years 2030 and 2035. In Appendix C of its submittal, Indiana has included a detailed narrative of KIPDA's methods.

Emissions data for the 2017 nonattainment year, 2019 attainment year, 2030 interim year, and 2035 maintenance year are shown in Tables 3 and 4 below. Data are expressed in terms of tons per ozone season day.

Table 3. NO_x emissions in the Louisville area for the 2017 nonattainment year, 2019 attainment year, 2030 interim year, and 2035 maintenance year (tons per summer day).

	2017	2019	2030	2035	Net Change (2019-2035)
Indiana					
Point	2.70	4.18	2.36	2.50	-1.68
Nonpoint	2.05	0.42	0.42	0.42	0
Nonroad	1.92	2.76	1.80	1.25	-1.51
On-road	11.03	7.73	4.31	4.07	-3.66
Total	17.70	15.09	8.89	8.24	-6.85
Kentucky					
Point	35.78	34.04	24.39	21.24	-12.80
Nonpoint	7.21	6.77	5.84	5.41	-1.36
Nonroad	3.46	3.38	2.91	2.69	-0.69
On-road	25.60	25.31	11.66	10.87	-14.44
Total	72.05	69.50	44.80	40.21	-29.29
Louisville, IN-KY 2015 Ozone Area					
Point	38.48	38.22	26.75	23.74	-14.48
Nonpoint	9.26	7.19	6.26	5.83	-1.36
On-road	36.63	33.04	15.97	14.94	-18.10
Nonroad	5.38	6.14	4.71	3.94	-2.20
Total	89.75	84.59	56.69	48.45	-36.14

Table 4. VOC emissions in the Louisville area for the 2017 nonattainment year, 2019 attainment year, 2030 interim year, and 2035 maintenance year (tons per ozone season day).

	2017	2019	2030	2035	Net Change (2019-2035)
Indiana					
Point	2.15	0.20	0.21	0.21	0.01
Nonpoint	12.21	8.33	8.55	8.65	0.32
Nonroad	1.14	1.43	1.31	1.22	-0.21
On-road	4.41	3.37	1.41	1.24	-2.13
Total	18.91	13.33	11.48	11.32	-2.01
Kentucky					
Point	30.92	33.45	24.52	21.61	-11.84
Nonpoint	40.14	36.76	31.48	29.08	-7.68
On-road	9.29	10.28	4.04	3.55	-6.73
Nonroad	4.37	4.36	4.31	4.28	-0.08
Total	84.72	84.85	64.35	58.52	-26.33
Louisville, IN-KY 2015 Ozone Area					
Point	33.07	33.65	24.73	21.82	-11.83
Nonpoint	51.35	45.09	40.03	37.73	-7.36
On-road	13.70	13.65	5.45	4.79	-8.86
Nonroad	5.51	5.79	5.62	5.50	-0.29
Total	103.63	98.18	75.83	69.84	-28.34

As shown in Tables 3 and 4, NO_x and VOC emissions in the Indiana portion of the Louisville area are projected to decrease by 6.85 tons per ozone season day and 2.01 tons per ozone season day, respectively, between the 2019 attainment year and 2035 maintenance year. NO_x and VOC emissions for the entire Louisville area are projected to decreased by 36.14 and 28.34 tons per ozone season day, respectively, between the 2019 attainment year and the 2035 maintenance year. Indiana's maintenance demonstration for the Indiana portion of the Louisville area shows maintenance of the 2015 ozone NAAQS by providing emissions information to support the demonstration

that future emissions of NO_x and VOC will remain at or below 2019 emission levels when considering both future source growth and implementation of future controls.

In addition, EPA's 2016v2 modeling platform includes updated air quality modeling of the contiguous United States, projecting ozone concentrations at all air quality monitors in 2023, 2026, and 2032.⁷ That modeling incorporates the most recent updates to emissions inventories, including on-the-books emissions reductions, and meteorology. This modeling indicates that EPA does not project the Louisville area to be in nonattainment of the 2015 ozone NAAQS, nor does EPA expect the area to struggle with maintenance, in those modeled future years. We propose to find that EPA's ozone transport air quality modeling further supports Indiana's demonstration that the Louisville area will continue to maintain the 2015 ozone NAAQS.

3. Continued air quality monitoring.

Indiana has committed to continue to operate its ozone monitors in the Indiana portion of the Louisville area for the duration of the maintenance period. Indiana remains obligated to meet monitoring requirements, to continue to quality assure monitoring data in accordance with 40 CFR part 58, and to enter all data into the AQS in accordance with Federal guidelines.

4. Verification of continued attainment.

Indiana has confirmed that it has the legal authority to

⁷ <https://www.epa.gov/air-emissions-modeling/2016v2-platform>.

enforce and implement the requirements of its SIP. Indiana has further committed that it has the authority to implement the requested SIP revision, which would include the maintenance plan for the Indiana portion of the Louisville area. This includes the authority to adopt, implement, and enforce any subsequent emission control measures determined to be necessary to correct future ozone attainment problems.

Verification of continued attainment is accomplished through operation of the ambient ozone monitoring network and the periodic update of the area's emissions inventory. Indiana will continue to operate the ozone monitors located in the Indiana portion of the Louisville area. There are no plans to discontinue operation, relocate, or otherwise change the existing ozone monitoring network other than through revisions in the network approved by EPA.

In addition, to track future levels of emissions, Indiana will continue to develop and submit to EPA updated emission inventories for all source categories at least once every three years, consistent with the requirements of 40 CFR part 51, subpart A, and in 40 CFR 51.122. The Consolidated Emissions Reporting Rule (CERR) was promulgated by EPA on June 10, 2002 (67 FR 39602). The CERR was replaced by the Annual Emissions Reporting Requirements on December 17, 2008 (73 FR 76539). The most recent triennial inventory for Indiana was compiled for 2017. Point source facilities covered by Indiana's emission statement program, described below in section VII., will

continue to submit VOC and NO_x emissions on an annual basis.

5. What is the contingency plan for the Indiana portion of the Louisville area?

Section 175A of the CAA requires that the state adopt a maintenance plan as a SIP revision that includes such contingency measures as EPA deems necessary to assure that the state will promptly correct a violation of the NAAQS that occurs after redesignation of the area to attainment of the NAAQS. The maintenance plan must identify: the contingency measures to be considered and, if needed for maintenance, adopted and implemented; a schedule and procedure for adoption and implementation; and a time limit for action by the state. The state should also identify specific indicators to be used to determine when the contingency measures need to be considered, adopted, and implemented. The maintenance plan must include a commitment that the state will implement all measures with respect to the control of the pollutant that were contained in the SIP before redesignation of the area to attainment in accordance with section 175A(d) of the CAA.

As required by section 175A of the CAA, Indiana has adopted a contingency plan for the Indiana portion of the Louisville area to address possible future ozone air quality problems. The contingency plan adopted by Indiana has two levels of response, a warning level response and an action level response.

In Indiana's plan, a warning level response shall be prompted whenever an annual (1-year) 4th high monitored value of

0.074 ppm or greater occurs in a single ozone season or a two-year average 4th high monitored value of 0.071 ppm or greater occurs within the maintenance area. A warning level response will require Indiana to conduct a study. The study would assess whether the ozone value indicates a trend toward a higher ozone value and whether emissions appear to be increasing. The study will evaluate whether the trend, if any, is likely to continue and, if so, the control measures necessary to reverse the trend, taking into account ease and timing of implementation. Any implementation of necessary controls in response to a warning level response trigger will occur within 12 months of the conclusion of the ozone season.

In Indiana's plan, an action level response will be triggered if a three-year design value exceeds the level of the 2015 ozone NAAQS (0.070 ppm). When an action level response is triggered and not found to be due to an exceptional event, malfunction, or noncompliance with a permit condition or rule requirement, Indiana will determine what additional control measures are needed to ensure future attainment of the 2015 ozone NAAQS. Control measures selected will be adopted and implemented within 18 months from the close of the ozone season that prompted the action level. Indiana may also consider if significant new regulations not currently included as part of the maintenance provisions will be implemented in a timely manner and would thus constitute an adequate contingency measure response.

Indiana included the following list of potential contingency measures in its maintenance plan (although Indiana is not limited to the measures on this list):

1. A vehicle/maintenance program
2. Asphalt paving (lower VOC formation)
3. Diesel exhaust retrofits
4. Traffic flow improvements
5. Idle reduction programs
6. Portable fuel container regulation (statewide)
7. Park and ride facilities
8. Rideshare/carpool program
9. VOC cap/trade program for major stationary sources
10. NO_x RACT

To qualify as a contingency measure, emissions reductions from that measure must not be factored into the emissions projections used in the maintenance plan.

EPA has concluded that Indiana's maintenance plan adequately addresses the five basic components of a maintenance plan: attainment inventory, maintenance demonstration, monitoring network, verification of continued attainment, and a contingency plan. In addition, as required by section 175A(b) of the CAA, Indiana has committed to submit to EPA an updated ozone maintenance plan eight years after redesignation of the Indiana portion of the Louisville area to cover an additional ten years beyond the initial 10-year maintenance period. Thus, EPA finds that the maintenance plan SIP revision submitted by

Indiana for the Louisville area meets the requirements of section 175A of the CAA, and EPA proposes to approve it as a revision to the Indiana SIP.

V. Has the state adopted approvable motor vehicle emission budgets?

A. Motor Vehicle Emission Budgets

Under section 176(c) of the CAA, new transportation plans, programs, or projects that receive Federal funding or support, such as the construction of new highways, must "conform" to (*i.e.*, be consistent with) the SIP. Conformity to the SIP means that transportation activities will not cause new air quality violations, worsen existing air quality problems, or delay timely attainment of the NAAQS or interim air quality milestones. Regulations at 40 CFR part 93 set forth EPA policy, criteria, and procedures for demonstrating and ensuring conformity of transportation activities to a SIP. Transportation conformity is a requirement for nonattainment and maintenance areas.

Under the CAA, states are required to submit, at various times, control strategy SIPs for nonattainment areas and maintenance plans for areas seeking redesignations to attainment of the ozone standard and maintenance areas. See the SIP requirements for the 2015 ozone standard in EPA's December 6, 2018 implementation rule (83 FR 62998). These control strategy SIPs (including reasonable further progress plans and attainment plans) and maintenance plans must include budgets for criteria

pollutants, including ozone, and their precursor pollutants (VOC and NO_x) to address pollution from on-road transportation sources. The budgets are the portion of the total allowable emissions that are allocated to highway and transit vehicle use that, together with emissions from other sources in the area, will provide for attainment or maintenance. See 40 CFR 93.101.

Under 40 CFR part 93, budgets for an area seeking a redesignation to attainment must be established, at minimum, for the last year of the maintenance plan. A state may adopt budgets for other years as well. The budgets serve as a ceiling on emissions from an area's planned transportation system. The budgets concept is further explained in the preamble to the November 24, 1993, Transportation Conformity Rule (58 FR 62188). The preamble also describes how to establish the budgets in the SIP and how to revise the budgets, if needed, subsequent to initially establishing the budgets in the SIP.

As discussed earlier, Indiana's maintenance plan includes NO_x and VOC budgets for the Indiana portion of the Louisville area for 2019, which is the attainment year, as well as 2035, which is the last year of the maintenance period. The budgets were developed as part of an interagency consultation process which includes Federal, state, and local agencies. The budgets were clearly identified and precisely quantified. These budgets, when considered together with all other emissions sources, are consistent with maintenance of the 2015 ozone NAAQS.

Table 5. Motor Vehicle Emission Budgets for the Louisville area for the 2019 attainment year and 2035 maintenance year (tons per ozone season day) .

	2019 attainment year			2035 maintenance year		
	Projected on-road emissions	Safety margin allocation	Total budgets	Projected on-road emissions	Safety margin allocation	Total budgets
NO _x	33.03	0	33.03	14.94	2.24	17.18
VOCs	13.65	0	13.65	4.79	0.72	5.51

As shown in Table 5, the 2035 budgets exceed the estimated 2035 on-road sector emissions. In an effort to accommodate future variations in travel demand models and vehicle miles traveled forecast, IDEM allocated to the mobile sector a portion of the safety margin, as described further below. Indiana has demonstrated that the Indiana portion of the Louisville area can maintain the 2015 ozone NAAQS in the 2035 maintenance year with mobile source emissions of 17.18 tons per ozone season day of NO_x and 5.51 tons per ozone season day of VOCs. Despite partial allocation of the safety margin, emissions will remain under emission levels in the 2019 attainment year.

EPA is proposing to approve the budgets for use to determine transportation conformity in the Indiana portion of the Louisville area, because EPA has determined that the area can maintain attainment of the 2015 ozone NAAQS for the relevant maintenance period with mobile source emissions at the levels of the budgets.

B. What is a safety margin?

A "safety margin" is the difference between the attainment level of emissions (from all sources) and the projected level of

emissions (from all sources) in the maintenance plan. As noted in Tables 3 and 4, the emissions in the Indiana portion of the Louisville area are projected to have safety margins of 6.85 tons per ozone season day for NO_x and 2.01 tons per ozone season day for VOC in 2035 (the difference between emissions in the 2019 attainment year, and projected emissions in the 2035 maintenance year, for all sources in the Indiana portion of the Louisville area). Even if emissions exceeded projected levels by the full amount of the safety margin, the area would still demonstrate maintenance since emission levels would equal those in the attainment year.

As shown in Table 5 above, Indiana is allocating a portion of that safety margin to the mobile source sector. In 2035, Indiana is allocating 2.24 tons per ozone season day and 0.72 tons per ozone season day of the NO_x and VOC safety margins, respectively. Indiana is not requesting allocation to the budgets of the entire available safety margins reflected in the demonstration of maintenance. In fact, the amount allocated to the budgets represents only a portion of the 2035 safety margins. Therefore, even though the State is requesting budgets that exceed the projected on-road mobile source emissions for 2035 contained in the demonstration of maintenance, the increase in on-road mobile source emissions that can be considered for transportation conformity purposes is within the safety margins of the ozone maintenance demonstration. Further, once allocated to mobile sources, these safety margins will not be available

for use by other sources.

VI. Base year emissions inventory.

As discussed above, sections 172(c)(3) and 182(a)(1) of the CAA require areas to submit a base year emissions inventory. For the 2015 ozone NAAQS, EPA specifies that states submit ozone season day emissions estimates for an inventory calendar year to be consistent with the base year for RFP plans as required by 40 CFR 51.1310(b). For the RFP base year for the 2015 ozone NAAQS under 40 CFR 51.1310(b), states may use a calendar year for the most recently available complete triennial emissions inventory (40 CFR 51, subpart A) preceding the year of the area's effective date of designation as a nonattainment area (83 FR 62998).⁸ States are required to submit estimates of NO_x and VOC emissions for four general classes of anthropogenic sources: point sources; nonpoint sources; on-road mobile sources; and nonroad mobile sources. In addition, states may include biogenic emissions as well as event emissions, which are discrete and short-lived sources such as wildfires. See the SIP requirements for the 2015 ozone standard in EPA's December 6, 2018 implementation rule (83 FR 62998), and EPA's 2017 document "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations."⁹

In its January 21, 2021, submittal, Indiana requested that

⁸ The RFP requirements specified in CAA section 182(b)(1) applies to all ozone nonattainment areas classified Moderate or higher.

⁹ https://www.epa.gov/sites/default/files/2016-12/documents/2016_ei_guidance_for_naaqs.pdf

EPA approve into its SIP an inventory addressing the emissions inventory requirement of CAA section 182(a)(1). Indiana's SIP revision included inventories of NO_x and VOC emissions for several nonattainment areas, including the Indiana portion of the Louisville area, for the year 2017. At the time of its submittal, data for 2017 was the most recent comprehensive, accurate, and quality assured triennial emissions inventory in the NEI database.

The primary source for Indiana's 2017 inventory is the annual emissions data contained in the 2017 NEI. In developing this inventory, Indiana estimated emissions per ozone season day. To convert annual emissions data to ozone season day values, emissions from June to August, IDEM extracted data from EPA's 2017 Emissions modeling platform and calculated a conversion factor for the EGU, point, nonpoint, on-road, nonroad categories.¹⁰

NO_x and VOC emissions data for the year 2017 are shown in Tables 6 and 7 below. Data are expressed in terms of tons per ozone season day.

Table 6. NO_x emissions for counties in the Indiana portion of the area for the 2017 base year (tons per ozone season day).

	Point	Nonpoint	On-road	Nonroad	EGU	Total
Indiana	1.58	2.05	11.03	1.92	1.12	17.70

Table 7. VOC emissions for counties in the Indiana portion of the Louisville area for the 2017 base year (tons per ozone season day).

	Point	Nonpoint	On-road	Nonroad	EGU	Total
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¹⁰ <https://www.epa.gov/air-emissions-modeling/2017-emissions-modeling-platform>.

Indiana	2.12	11.21	4.41	1.14	0.03	18.91
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Indiana's January 21, 2021, emissions inventory submission includes a demonstration showing that CAA section 110(l) does not prohibit approval of this SIP revision; such a demonstration is sometimes called an anti-backsliding demonstration. Section 110(l) provides that EPA cannot approve a SIP revision if the revision would interfere with attainment and maintenance of the NAAQS, reasonable further progress, or any other applicable requirement of the CAA. IDEM is making this submission as required by CAA sections 172(c)(3) and 182(a)(1), and approval of the 2017 base year inventories would strengthen the Indiana SIP and would not interfere with any applicable CAA requirement.

EPA reviewed Indiana's January 21, 2021, submittal for consistency with sections 172(c)(3) and 182(a)(1) of the CAA, and with EPA's emissions inventory requirements. In particular, EPA reviewed the techniques used by IDEM to derive and quality assure the emissions estimates. The documentation of the emissions estimation procedures is thorough and is adequate for EPA to determine that Indiana followed acceptable procedures to estimate the emissions. Accordingly, we propose to conclude that Indiana has developed inventories of NO_x and VOC emissions that are comprehensive and complete. EPA therefore proposes to approve the emissions inventory for the Indiana portion of the Louisville area in Indiana's January 21, 2021, submittal and shown above in Tables 6 and 7 as meeting the emissions inventory

requirements of sections 172(c)(3) and 182(a)(1) of the CAA.

In this rulemaking, EPA is only evaluating the portions of Indiana's January 21, 2021, emissions inventory submittal relating to the Indiana portion of the Louisville area. EPA is not evaluating inventories relating to other nonattainment areas. Instead, EPA will evaluate these inventories in a separate rulemaking.

VII. Emissions statement.

Section 182(a)(3)(B) of the CAA requires states to include regulations in the SIP to require sources (source facilities) to submit annual statements characterizing sources of NO_x and VOC emission within the source facilities and to report actual NO_x and VOC emissions for these sources. IDEM confirmed in the January 21, 2021, submittal and September 10, 2021, supplement that IDEM's emissions reporting rule at 326 Indiana Administrative Code (IAC) 2-6, remains in place and adequate to meet the CAA section 182(a)(3)(B) emission statement requirement for the 2015 ozone standard. This rule specifically requires all facilities located in Lake, Porter, Clark, and Floyd Counties that emit greater than or equal to 25 tons/year of NO_x or VOC during the reporting year to submit annual emissions statements.

EPA approved IDEM's emissions reporting rule, IAC 2-6, into the Indiana SIP on June 16, 2021, 86 FR 31922, and it is currently being implemented. The rule requires sources of NO_x and VOC in Lake, Porter, Clark, and Floyd Counties to annually

report emissions if the sources emit NO_x or VOC equaling or exceeding 25 tons per year. Therefore, IDEM's rule IAC 2-6 meet the requirements of CAA section 182(a)(3)(B).

VIII. What Action is EPA Taking?

EPA is proposing to determine that the Indiana portion of the Louisville nonattainment area is attaining the 2015 ozone NAAQS, based on quality-assured and certified monitoring data for 2019-2021 as presented in Indiana's February 21, 2022 submittal. EPA is proposing to approve portions of Indiana's January 21, 2021, submittal as meeting the base year emissions inventory and emissions statement requirements of sections 182(a)(1) and 182(a)(3), respectively. EPA is proposing to determine that upon final approval of Indiana's 2017 base year emissions inventory and emission statement SIP, the area will have met the requirements for redesignation under section 107(d)(3)(E) of the CAA. EPA is thus proposing to change the legal designation of the Indiana portion of the Louisville area from nonattainment to attainment for the 2015 ozone NAAQS. EPA is also proposing to approve, as a revision to the Indiana SIP, the state's maintenance plan for the area. The maintenance plan is designed to keep the Indiana portion of the Louisville area in attainment of the 2015 ozone NAAQS through 2035. EPA finds adequate and is proposing to approve the newly-established 2035 budgets for the Louisville area.

IX. Statutory and Executive Order Reviews.

Under the CAA, redesignation of an area to attainment and

the accompanying approval of a maintenance plan under section 107(d)(3)(E) are actions that affect the status of a geographical area and do not impose any additional regulatory requirements on sources beyond those imposed by state law. A redesignation to attainment does not in and of itself create any new requirements, but rather results in the applicability of requirements contained in the CAA for areas that have been redesignated to attainment. Moreover, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, the proposed actions to approve Indiana's SIP submissions merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that these reasons, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory

Flexibility Act (5 U.S.C. 601 *et seq.*);

- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by

Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control,
Incorporation by reference, Intergovernmental relations,
Nitrogen dioxide, Ozone, Reporting and recordkeeping
requirements, Volatile organic compounds.

Dated: May 11, 2022.

Debra Shore,
Regional Administrator, Region 5.

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